

REMARKS

Claims 1-32 are now in the application. By this Amendment, claims 1 and 11 have been amended. Support for the amendment to claim 1 is found at least at page 12, lines 33-35, of Applicants' disclosure. Claims 18-32 have been previously withdrawn by the Examiner. No new matter has been added.

Claim 11 is rejected under 35 U.S.C. §112, second paragraph, for reciting a preferred molecular weight range. Claim 11 has been amended to obviate this rejection.

Claims 1-13, 16, and 17 have been rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent No. 6,528,590 to Beyer et al. in view of US Patent No. 4,380,600 to Hosoda et al.

The Office Action asserts that the monomers c suggested at col. 3, lines 32-58, of Beyer can reasonably be considered to correspond to a crosslinker, as claimed. Applicants' disclosure, at page 17, lines 30-31, defines – and a skilled artisan would so understand – that a crosslinker is a molecule comprising at least two ethylenically unsaturated, nonconjugated double bonds. The monomers c suggested at col. 3, lines 32-58, of Beyer, however, comprise only one ethylenically unsaturated double bond. Thus, Beyer fails to suggest the use of a crosslinker in the preparation of a dispersion.

The Office Action relies on Hosoda for suggesting a polymerization using polyethylene glycol, polyvinyl alcohol, and polyvinylpyrrolidone. Hosoda is not applied in a manner to cure the deficiencies of Beyer discussed above.

Claims 1-17 have been rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent No. 6,770,293 to Angel et al. in view of Beyer.

The Office Action asserts, at page 8, lines 8-13, that it would have been obvious to prepare an aqueous dispersion via polymerization of ethylenically unsaturated monomers in the presence of polyether. Further, at page 5, lines 13-16, the Office Action asserts that the

emulsifiers and other dispersion auxiliaries suggested at col. 4, lines 58-65, and at col. 6, lines 43-53, of Beyer can reasonably be considered to correspond to a precipitation agent, as claimed.

Claim 1 has been amended to recite that c) differs with regard to composition from a polymer obtained by free-radical polymerization to further clarify that the precipitation agent is present during the polymerization, but is not covalently linked to the resulting polymer comprising monomers a).

Moreover, as set forth at page 13, lines 11-13, the polymeric precipitation agent c) is not available in a relevant amount as a reactant, i.e., it does not result in relevant amounts in a covalent bond between the polymeric precipitation agent c) and the other monomers. As set forth at page 12, lines 33-38, of Applicants' disclosure, the precipitation agents c) differ with regard to composition from the water-soluble polymer obtained and the precipitation agents reduce the solvation properties of the aqueous phase.

Applicants respectfully submit that compounds acting as precipitation agents under the reaction conditions of Angel are not taught in Angel. Instead, Angel teaches, at col. 3, lines 55-60, that during polymerization the vinyl esters are polymerized by grafting onto the polyether-containing compounds (b). Angel further teaches that the vinyl esters may be linked to the polyether by some other mechanism than grafting; the resulting soft capsules, however, comprises both polyether and polymerized vinyl esters. In other words, under the reaction conditions of Angel, the polyether-containing compounds (b) can not only not be considered to correspond to a precipitation agent, but function as reactants and are found in the resulting soft capsule product as a result of a grafting polymerization or some other mechanism.

In addition, Angel teaches away from a process wherein a polymerization takes place in the presence of a precipitation agent because Angel teaches, at col. 13, lines 30-34, that when a water-insoluble polymer is produced organic solvents are added to increase the solubility. Angel fails to teach adding compounds that decrease the solubility.

As set forth at page 62, lines 1-7, the dispersions according to the invention (examples 1 to 3) display excellent hair cosmetic properties. They can be prepared with a high solids content coupled with a desired low viscosity. The corresponding dispersions prepared without crosslinker (comparative example C3) exhibit unsatisfactory hair cosmetic properties. The preparation in the presence of a crosslinker is obligatorily necessary to achieve the performance properties. Polymers which are prepared without polymeric dispersant and polymeric precipitation agent (comparative example C1) are not accessible on a large scale due to their high solution viscosity. Angel and Beyer fail to suggest features corresponding to a process using a polymeric dispersant and a polymeric precipitation agent.

Claims 2-17 are in condition for allowance for at least their respective dependence on an allowable claim 1, as well as for the additional patentable features that each of these claims recites. Rejoinder of claims 18-21 and prompt allowance of claims 1-21 are respectfully requested.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 12810-00104-US from which the undersigned is authorized to draw.

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Respectfully submitted,

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